IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Attorney Docket No.: **HA-59APPCON (HAL-ID 094APPCON)**

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Applicants: **Larry Pearlstein**

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Examiner: **Tung T. Vo**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTERVIEW SUMMARY AND PROPOSED AMENDMENT

Sir:

Proposed **Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 8 of this paper.

PROPOSED AMENDMENTS TO THE CLAIMS:

This listing of claims is submitted as a PROPOSED AMENDMENT and is **NOT** intended to replace all prior versions, and listings, of claims in the application:

Claims 1-22 (canceled)

Claim 23 (proposed amendment): A video processing method comprising the steps of:

receiving encoded video data representing a series of images, said encoded video data having been encoded using motion compensated prediction on at least some of the images being encoded, each encoded image in said series of images including a first predetermined contiguous image area and a second predetermined contiguous image area, each of said first and second predetermined contiguous image areas being smaller than a full area of an image in said series of images, motion vectors for the first predetermined contiguous image areas using for predictions only pixels within first predetermined contiguous image areas, an individual motion vector for the first predetermined image area of an encoded image referencing a portion of the first predetermined image area of one of said series of images, each of said first predetermined contiguous image areas being located at the same location in each of said series of images, said same location having been determined prior to encoding; and

decoding said received encoded video data including said motion vectors.

Claim 24 (previously presented): The method of claim 23,

displaying images corresponding to the decoded received encoded video data.

Claim 25 (previously presented): The method of claim 23, wherein the received encoded image data further includes motion vectors for the second predetermined contiguous image areas, the motion vectors for the second predetermined contiguous image area using for predictions only pixels within second predetermined contiguous image areas of said series of images.

Claim 26 (previously presented): The method of claim 23, wherein the encoded image data includes information identifying areas of the images in said series of images to which motion compensated prediction was separately applied.

Claim 27 (previously presented): The method of claim 23, wherein said at least one image is a frame.

Claim 28 (proposed amendment): A video processing device comprising:

a decoder for decoding encoded video data <u>including motion vectors, said encoded video data</u> representing a series of images, said encoded video data having been encoded using motion compensated prediction on at least some of the images being encoded, each encoded image in said series of images including a first predetermined contiguous image area and a second predetermined contiguous image area, each of said first and second contiguous image areas being smaller than a full area of an image in said series of images, motion vectors for the first predetermined contiguous image areas using for predictions only pixels within first predetermined

contiguous image areas, an individual motion vector for the first predetermined image area of an encoded image referencing a portion of the first predetermined image area of one of said series of images, said first predetermined contiguous image areas being located at the same location in each of said series of images, said same location having been determined prior to encoding.

Claim 29 (previously presented): The video processing device of claim 28, further comprising:

a display for displaying decoded image data generated by said decoder.

Claim 30 (proposed amendment): A method of processing video data comprising the steps of:

receiving encoded video data including motion vectors, said encoded video data representing a series of images, said encoded video data having been encoded using motion compensated prediction on at least some of the images being encoded, each image including first and second predetermined contiguous image areas, said first and second predetermined contiguous image areas being in the same location in each image in the series of images, said same location having been determined prior to encoding, motion vectors for the first predetermined contiguous image areas using for predictions only pixels of first predetermined contiguous image areas, an individual motion vector for the first predetermined image area of an encoded image referencing a portion of the first predetermined image area of one of said series of images, encoded image data corresponding to a second predetermined image area of at least one of said images including insert image data that was

added to said encoded video data after initial encoding of said at least one of said images; and

decoding said received encoded video data including motion vectors.

Claim 31 (previously presented): The method of claim 30, further comprising:

displaying images corresponding to the decoded received encoded video data.

Claim 32 (previously presented): The method of claim 30, wherein the encoded image data includes information identifying areas of the images in said series of images to which motion compensated predictions were separately applied.

Claim 33 (previously presented): The method of claim 32, wherein each image in said series of images is a frame.

Claim 34 (proposed amendment): A method of processing video data comprising the steps of:

receiving encoded video data representing a second image that was encoded as a function of a first image, the first and second images each including a first and a second non-overlapping image segment, each of the first and second non-overlapping image segments including a plurality of vertically contiguous pixels, the first non-overlapping image segment occurring in the same location in each of the first and second images, the location of said first non-overlapping image segment being determined prior to encoding of the first and second images, said encoded video data representing the second image using as reference data from the first image, only image data corresponding to the first image segment of

the first image, for motion vectors representing a portion of the first image segment of the second image, and using as reference data from the first image, image data corresponding to the second image segment of the first image, for motion vectors representing a portion of the second image segment of the second image, said encoded video data including a motion vector corresponding to the first image segment of the second image which references a portion of the first image segment of the first image; and

decoding said received encoded video data including said motion vector.

Claim 35 (previously presented): The method of claim 34, further comprising:

displaying the decoded video data.

Claim 36 (previously presented): The method of claim 34, wherein the received encoded video data representing the second image was also encoded as a function of a third image in addition to the first image, the received encoded video data using as reference data from the third image, only image data corresponding to a first image segment of the third image, for motion vectors representing a portion of the first image segment of the second image.

Claim 37 (previously presented): The method of claim 36, wherein said received encoded video data further uses as reference data from the third image, image data corresponding to the second image segment of the third image, for motion vectors representing a portion of the second image segment of the second image.

Claim 38 (previously presented): The method of claim 34, wherein the first and second image regions of the second image represented by the received encoded image data were encoded using independent non-overlapping sets of reference data for motion compensated prediction purposes, said received encoded image data including information identifying each of the image segments which is independently encoded using motion compensated prediction techniques.

Claim 39 (previously presented): The method of claim 38,

wherein said first and second images are frames;

wherein said encoded video data is MPEG-2 compliant; and

wherein said first and second predetermined contiguous image areas each include multiple MPEG-2 macroblocks.

Claim 40 (previously presented): The video processing method of claim 23, wherein said first and second predetermined contiguous image areas each include multiple macroblocks.

Claim 41 (previously presented): The video processing method of claim 40, wherein said encoded video data is MPEG-2 compliant and wherein macroblocks are MPEG-2 macroblocks.

Claim 42 (previously presented): The video processing device of claim 28,

wherein said encoded video data is MPEG-2 compliant; and

wherein said first and second predetermined contiguous image areas each include multiple macroblocks.

REMARKS/ARGUMENTS

I. Interview Summary including Discussion of Proposed Amendment

During a March 22, 2010 telephone interview, Applicant argued that the pending claims were patentable for the reasons argued in the last amendment.

The Examiner suggested that Applicant submit a proposed amendment along the lines of the amendments made herein for the Examiner to consider and that such an amendment was likely to put the application in condition for allowance.

In a March 24, 2010 follow-up telephone conversation Applicant's representative discussed the matter with the Examiner further making it clear that while, in some claims, motion vectors of an image segment referenced a portion of the corresponding image segment, e.g., a portion corresponding to pixels in the referenced segment, the size of the referenced portion could vary depending on the motion vector. Thus, while it was likely that the referenced portion size would be smaller than the entire referenced segment in many cases, the referenced portion of a segment could be a portion equal in size to the entire segment. The Examiner did not disagree with this interpretation regarding the possible size of a referenced portion of a segment and suggested that Applicant proceed with submitting a proposed amendment for the Examiner's consideration and Applicant agreed to submit a proposed amendment,

II. Conclusion

The Examiner is invited to contact Applicant's undersigned representative by telephone to discuss and resolve any outstanding issues.

Respectfully submitted,

/Michael P. STRAUB, Reg. #36,941/

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